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Signed

Dated 9 March 2004



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P01/7700 0.00-0302690.3

Request for grant of a patent

(See the notes on the back of this form. You can also get an explanatory leaflet from the Patent Office to help you fill in this form)

THE PATENT OFFICE**D****- 6 FEB 2003****NEWPORT**

The Patent Office

 Cardiff Road
Newport
South Wales
NP10 8QQ

1. Your reference

P33353-GMM/PMC/JCO

2. Patent application number

*(The Patent Office will fill in this part)***0302690.3****F 6 FEB 2003**3. Full name, address and postcode of the or of each applicant *(underline all surnames)*
 Snapwatch Limited
Corner Cottage
Monxton
Hampshire
SP11 8AH

8559379001

Patents ADP number *(if you know it)*

If the applicant is a corporate body, give the country/state of its incorporation

United Kingdom

4. Title of the invention

"Display Apparatus"5. Name of your agent *(if you have one)*

Murgitroyd & Company

"Address for service" in the United Kingdom to which all correspondence should be sent
(including the postcode)

 Scotland House
165-169 Scotland Street
Glasgow
G5 8PL
Patents ADP number *(if you know it)*

1198015

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and *(if you know it)* the or each application number

Country

Priority application number
*(if you know it)*Date of filing
(day / month / year)

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application

Date of filing
(day / month / year)

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? *(Answer 'Yes' if:*

Yes

- a) *any applicant named in part 3 is not an inventor, or*
 - b) *there is an inventor who is not named as an applicant, or*
 - c) *any named applicant is a corporate body.*
- See note (d))*

Patents Form 1/77

9. Enter the number of sheets for any of the following items you are filing with this form.
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Continuation sheets of this form

Description 6

Claim(s) -

Abstract -

Drawing(s) 3

23

ly

10. If you are also filing any of the following, state how many against each item.

Priority documents -

Translations of priority documents -

Statement of inventorship and right to grant of a patent (Patents Form 7/77)

Request for preliminary examination and search (Patents Form 9/77)

Request for substantive examination (Patents Form 10/77).

Any other documents
(please specify) -

11.

I/We request the grant of a patent on the basis of this application.

Signature

Murgitroyd & Company

Date

5 February 2003

12. Name and daytime telephone number of person to contact in the United Kingdom

Peter McBride

0141 307 8400

Warning

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Notes

- If you need help to fill in this form or you have any questions, please contact the Patent Office on 08459 500505.
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- If you have answered 'Yes' Patents Form 7/77 will need to be filed.
- Once you have filled in the form you must remember to sign and date it.
- For details of the fee and ways to pay please contact the Patent Office.

1 Display Apparatus

2

3 The present invention relates to display apparatus,
4 particularly, but not exclusively, display apparatus
5 which is used as personal jewellery or wrist
6 watches.

7

8 Most people own a wristwatch and they can be found
9 in a number of guises to suit personal taste and
10 disposable income. They all have the same basic
11 features, however, of a central section which
12 provides the time and display (be it analogue or
13 digital) and also contains the watch's mechanism, a
14 strap or bracelet which surrounds the wearer's wrist
15 and a clasp or buckle to secure the whole
16 arrangement to the wearer's wrist.

17

18 According to the present invention there is provided
19 a display apparatus comprising a malleable display
20 member and a control unit provided at one end of the
21 display member.

22

1 Preferably the malleable display member further
2 comprises a malleable strip bonded to a luminescent
3 display.

4

5 Preferably the malleable display member is
6 detachable from the control unit. The display
7 member can therefore be detached and replaced with
8 an alternative design or size to suit the
9 individual.

10

11 Preferably the luminescent display incorporates
12 surface mounted controls.

13

14 Preferably the controls comprise touch sensitive
15 control areas.

16

17 Preferably the malleable display member is
18 sufficiently stiff as to retain its shape without
19 the need for a latch or other retainer.

20

21 An embodiment of the present invention will now be
22 described, by way of example only, with reference to
23 the accompanying drawings in which:

24

25

26 Fig. 1 is a plan view of a display apparatus
27 according to the present invention;

28

29 Fig. 2 is a perspective view of the apparatus
30 of Fig. 1 in which the apparatus has been
31 moulded into a loop; and

32

1 Fig. 3 is a perspective view of the apparatus
2 of Fig.1 showing the details of the
3 construction of the apparatus.

4

5 Referring to the drawings and initially to Fig. 1
6 there is shown a watch according to the present
7 invention generally referred to as 10. The watch 10
8 comprises two main elements, a control unit 12 and a
9 malleable display band 14. The control unit 12 and
10 the malleable display band 14 are not permanently
11 connected and can be readily interchanged.

12

13 The control unit 12 contains all of the required
14 mechanisms and the power source for the watch. It
15 consists of a rear cover and a top cover which clip
16 securely together and house a battery 12a and
17 electronics 12b.

18

19 In this case the watch uses a standard quartz
20 mechanism and an ordinary watch battery.

21

22 The display band 14 is constructed from several
23 layers which are shown in greater detail in Fig. 3,
24 and which are held together by double-sided LSE
25 clear 3M adhesive between adjacent layers.

26

27 The bottom layer 16 is a $500\mu\text{m}$ thick natural rubber
28 section. Above that is a malleable layer 18
29 composed of a $50\mu\text{m}$ plastic coated hardened and
30 tempered steel. Above that is a $100\mu\text{m}$ thick
31 electro-luminescent display layer 20 on top of which
32 is a $50\mu\text{m}$ polyester deep dyed filter layer 22.

1 Finally, there is a 100 μm anti-moisture ingress
2 coating 24. All five layers form a composite
3 sandwich to make up the display band 14.

4

5 The four layers apart from the electroluminescent
6 layer 20 terminate first inside the control unit 12.
7 The electroluminescent layer 20 continues further
8 into the control unit 12 and adopts its shape. The
9 layer 20 has a beryllium-copper surface-mounted
10 connector similar to the mounting of an LCD in a
11 mobile phone. This allows the user to have several
12 displays of differing colours and layouts driven
13 from a common driver circuit and battery.

14

15 The display band 14 also contains touch sensitive
16 buttons (not shown). These are used to control the
17 functions of the watch such as setting the time.
18 Buttons may also be included which alter the display
19 properties of the band, for example to increase
20 luminescence or to change a decorative pattern on
21 the watch.

22

23 In use the watch 10 is placed over the wearer's
24 wrist in its initial flat form. The wearer then
25 applies pressure to the ends of the watch 10. The
26 display band 14 yields to the pressure and moulds
27 around the wearer's wrist. Once a desired fit is
28 attained, the wearer discontinues the application of
29 pressure. The watch 10 is left in a moulded
30 position around the wearer's wrist. The watch 10 in
31 this form can be seen more clearly in Fig. 2.

32

1 The watch 10 does not require any latch mechanism to
2 hold it in this position, as the malleability of the
3 display band 14 retains it around the wearer's wrist
4 until the wearer wishes to remove it.

5

6 Since the watch 10 has malleable property, it can be
7 readily moulded into a number of shapes or sizes.
8 Standard lengths of display bands 14 can fit a
9 variety of wearers with differing wrist sizes.
10 Alternatively a single wearer can deploy the watch
11 on another limb; the leg for example.

12

13 Since the control unit 12 and display band 14 are
14 interchangeable, the wearer can alternate shapes and
15 designs of display band to suit mood or occasion. A
16 number of modifications are envisaged without
17 departing from the scope of the invention.

18

19 The invention may be provided as an item of
20 adornment only and may not contain a time displaying
21 function. The invention could therefore display an
22 attractive design for aesthetic purposes only. This
23 design could also be changeable via the control unit
24 12 alternating between several designs.

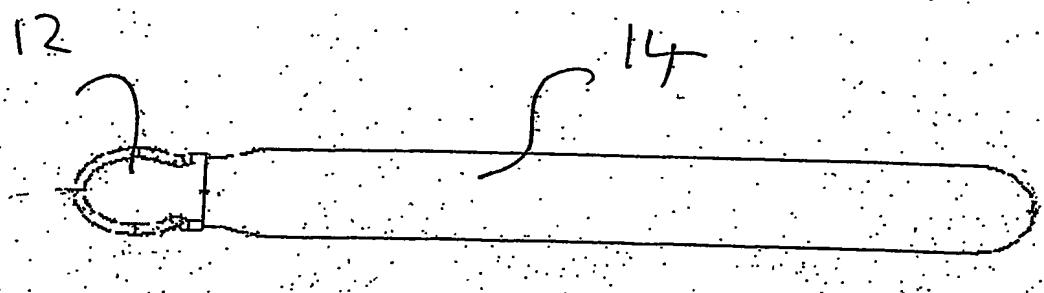
25

26 The invention may include means to program the
27 device to alternate the displayed design at a set
28 frequency, or to strobe or produce other interesting
29 or eye-catching effects.

30

31 All this can be separate from or in conjunction with
32 a display of the time.

1
2 Furthermore, the invention may include a sound
3 sensor linked to the display feature. Therefore if
4 the invention is exposed to a sound source, for
5 example if the wearer is in a nightclub, the
6 invention would provide an attractive display which
7 flashes or illuminates selectively in response to
8 the tempo of the music.



10 → Fig. 1

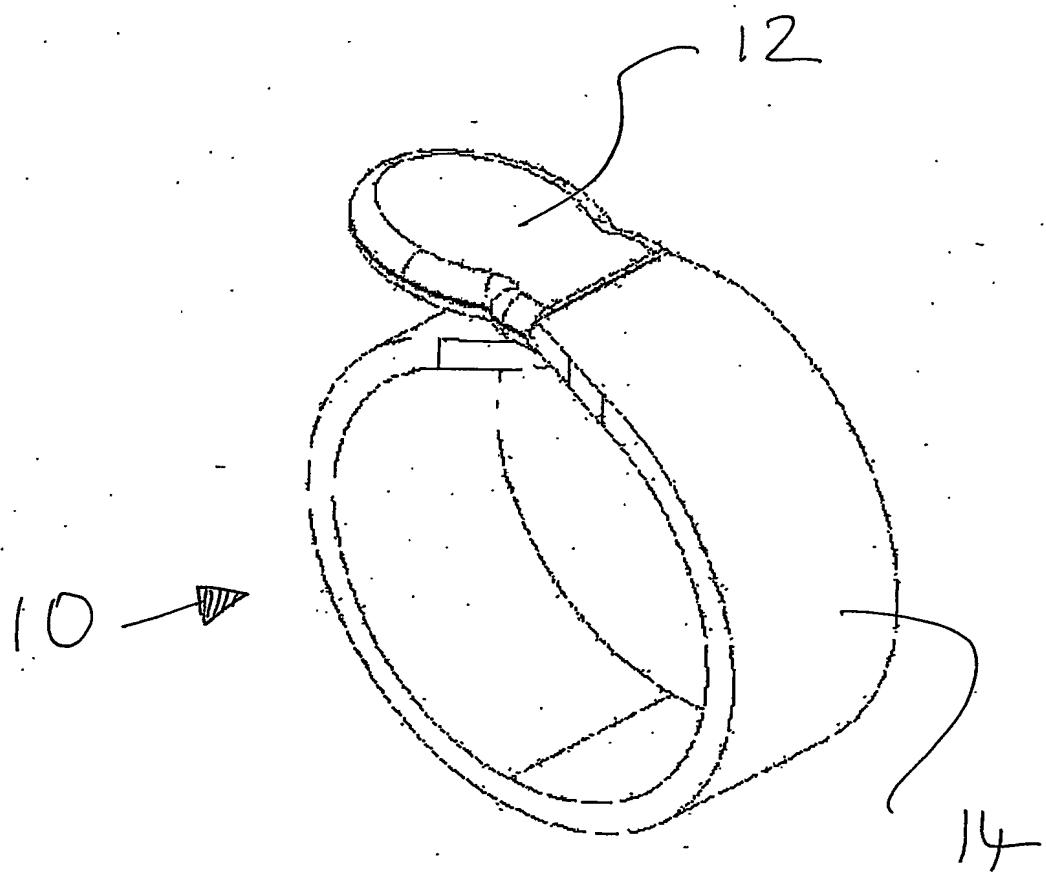


Fig. 2

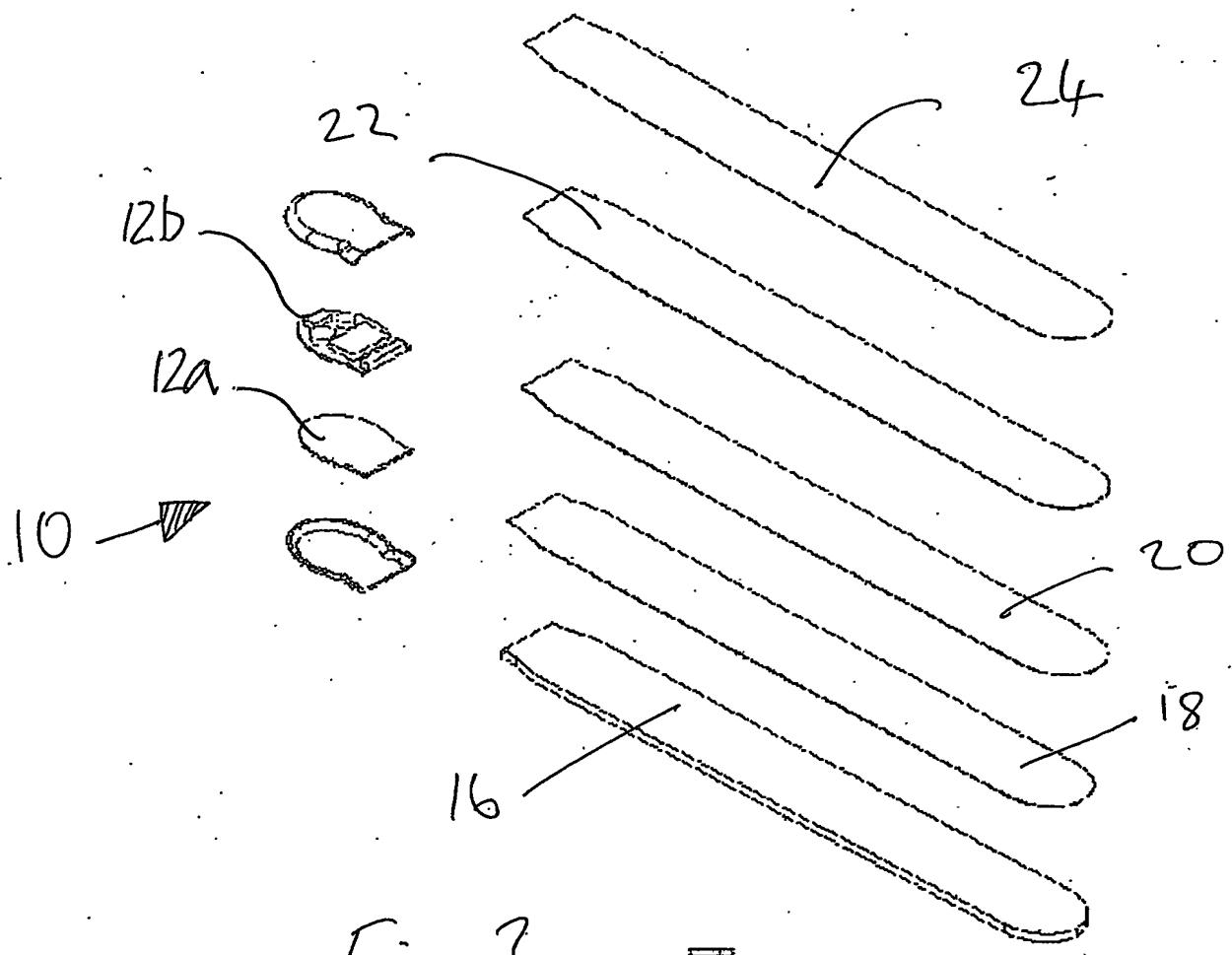


Fig. 3 -